U.S. ENVIRONMENTAL PROTECTION AGENCY
POLLUTION/SITUATION REPORT
New Hope Oil Dump - Removal Polrep
Initial Removal Polrep

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
Region IV

Subject: **POLREP #1**
Initial POLREP
New Hope Oil Dump

New Hope, TN
Latitude: 35.0077740 Longitude: -85.6579080

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Date: 7/11/2020
Reporting Period: 7/9/2020-7/10/2020

1. Introduction

1.1 Background

Site Number:	C4F3	**Contract Number:**	
D.O. Number:		**Action Memo Date:**	
Response Authority:	CERCLA	**Response Type:**	Emergency
Response Lead:	EPA	**Incident Category:**	Removal Action
NPL Status:	Non NPL	**Operable Unit:**	
Mobilization Date:	7/9/2020	**Start Date:**	7/9/2020
Demob Date:		**Completion Date:**	
CERCLIS ID:	TNN000420074	**RCRIS ID:**	
ERNS No.:		**State Notification:**	
FPN#:	E20417	**Reimbursable Account #:**	V4GQ

1.1.1 Incident Category
Emergency Response

1.1.2 Site Description

The New Hope City Park Site (the Site) is located behind the New Hope Volunteer Fire Department building and consists of a baseball field and picnic building with pavilion, kitchen, and bathrooms. The Site is surrounded by residential lots on the south and east side, a wooded pond on the west side and a wooded area on the north side with residences in the next lot.

1.1.2.1 Location
New Hope City Park
2615 TN-156, New Hope, Marion County, Tennessee

1.1.2.2 Description of Threat

The threat is dumped grease, animal fat or used cooking oil OR sewage discharge in a public park in close proximity to the public and waters of the US. The release/discharge has impacted adjacent waterways and residential property.

1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

The Tennessee Department of Environmental Control (TDEC) contacted the EPA and requested assistance with what was believed to be an animal fat or cooking oil dumping of unknown origin in New Hope City Park. Sometime after the dumping event, flooding occurred and spread the oil over an estimated four-acre area of the park. TDEC reported dead and stressed vegetation at the spill site and a small sheen on the Tennessee River emanating from the spill. The oil-contaminated area is also adjacent to residential homes. There is currently no identified Potential Responsible Party (PRP). A Federal On-Scene Coordinator (OSC), Superfund Technical Assistance Response Team (START) Contractors and Emergency and Rapid Removal Services (ERRS) mobilized to conduct remediation activities.

The OSC arrived on the evening of 7/9/2020 and confirmed the presence of grease and oily material mixed with water, vegetation, and soil in the park. A significant pool of floodwater covered approximately 20 percent of the park on the west side. Hydrocarbon test strip paper confirmed the presence of oil in several locations, but reaction time for the paper was not instantaneous for some of the material. No elevated readings of volatile organic compounds (VOCs), hydrogen sulfide (H2S), explosive gases (lower explosive limit, i.e., LEL), or carbon monoxide (CO) were measured at the surface of the material using an RAE Systems MultiRAE Pro analyzer, but an excessive odor similar to decomposing organic material was observed.

Samples of discernible grease and dark sludge were analyzed with a Smiths Detection HAZMAT ID. For the white or tan-colored grease, the instrument identified properties consistent with proteins and, due to its limitations with protein identification, it was not able to suggest a potential material match for the spectrum. For the dark-colored sludge, the instrument returned a maximum spectrum match of 92.7% for two oil additives used for defoaming, with a lower match for glyoxal at 91.1% match. The HAZMAT ID is limited in material identification to the library of known spectrum within its database, it is not able to accurately identify materials in mixtures but is beneficial as a screening tool to provide direction for the investigation.

Based on the confirmation of the presence of oil, the OSC mobilized the EPA's START and ERRS contractors to the release. Since no rain was forecast until 7/12/202, the OSC determined that contract resources could mobilize to arrive on the morning of 7/10/2020.

2. Current Activities

2.1 Operations Section

2.1.1 Narrative

On the morning of 7/10/2020, The OSC directed START to collect samples of water downstream, the discernible grease, the dark-colored sludge, and the soil at the park. The OSC directed ERRS to began vacuuming the grease with a vacuum truck and installing filter barriers downstream (using hay bales) to prevent further migration of any oil. A frac-tank was brought on-site to store the liquid that was collected, and equipment was mobilized to isolate the oil-impacted area and excavate the impacted soil.

The OSC met with TDEC and investigated further impacts downstream. The OSC and TDEC found a channel approximately 5-10 feet wide had been excavated in the earthen berm between the park and the pond on the west side. The pond on the west side contained water with the dark color and the strong odor that was observed in the park. A sheen on the water in the channel and in the pond was observed, but it could not be determined whether the sheen was from oil or from a combination of bacteria and sediment. The dark-colored water with a strong odor was also observed in the ditch underneath TN-156 and into at least the first property on the south side of the road. The OSC and TDEC determined that the characteristics of the water were more consistent with sewage than a spill of animal fat or cooking oil. The OSC contacted the EPA R4 Telephone Duty Officer to state that the response may not qualify as an oil response and that a CERCLA Site ID should be opened.

The OSC inspected the downstream waterway at 1239 hrs. on 7/10/2020. No oil or dark-colored water was observed at the intersection with Long Island Road (approximately 1.3 miles downstream from the park) nor at Short Hollow Road (approximately 0.9 miles downstream from the park).

2.1.2 Response Actions to Date

1.2 Response Actions to Date

- Collected analytical samples of water, discernible grease, sludge and soil

- Constructed barrier at outfall from park to prevent further migration of oil downstream

- Initiated removal and storage of grease and sludge

- Initiated excavation and consolidation of sludge and water

2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

No PRP has been identified. An access agreement has been provided to the City of New Hope to conduct the work in New Hope City Park. Verbal access was granted to initiate the work.

2.1.4 Progress Metrics

A vacuum truck was used to move discernible grease and sludge to a frac tank. Impacted soil was scraped and used to berm around sludge in order to improve the depth of liquid and sludge for vacuuming. It is anticipated that this soil will be stockpiled for disposal if the spill source is determined to have been an industrial wastewater or animal fat or vegetable oil.

Waste Stream	*Medium*	*Quantity*	*Manifest #*	*Treatment*	*Disposal*
Grease and sludge		6000 gal			

2.2 Planning Section

2.2.1 Anticipated Activities

The OSC will continue to investigate the source of the spill, the START contractor will continue to collect analytical data, and the ERRS contractor will continue to remediate the spilled area.

2.2.1.1 Planned Response Activities

Mitigate the threat of contamination downstream (ONGOING)

- Recover and dispose of grease and oils which can be distinguished from other materials (ONGOING)

- Collect samples for laboratory analysis to determine the contents and composition of the spilled materials (ONGOING)

- Conduct an investigation to determine the spill source including interviews and collection of documentation (ONGOING)

- Excavate and dispose of impacted soil

2.2.1.2 Next Steps

- A second filter barrier is needed at the outfall of the pond where it enters the ditch that crossest TN-156. No rainfall is anticipated for 7/11/2020, so the barrier can be installed on the next day.

- Further investigation is needed to identify the extent of contamination in the ditch. Access has been granted by property owners to inspect certain segments of the ditch where there is no road crossing.

-The OSC intends to excavate around the sump near the park building to determine whether there is a break in the sewer line near the sump.

2.2.2 Issues

The OSC and TDEC met with the supervisor for Marion Gas Systems Board of Waterworks & Sewers and the Mayor of the City of New Hope. The Marion Water Supervisor provided information about the sewer system in the area, which is a pressure main at TN-156 that is pumped intermittently by a county-owned pump. The pressure main receives effluent from the Colonial Chemical Co. located upstream of the New Hope City Park. There are few other connections on the system between Colonial Chemical Co. and the park; the company operates a pre-treatment system and discharges approximately 20,000 gallons per day to the sanitary sewer in batches of approximately 2,000 gallons. The effluent is pumped into the pressure main by the facility. A copy of the Colonial Chemical Co. discharge permit was provided so that the material could be sampled for unique constituents that may be consistent with that effluent.

Representatives from Colonial Chemical Co. met with the OSC at the Site to provide information about their effluent and assist in determining whether the material at the park was potentially sourced from their sewer connection. Colonial Chemical Co. stated that a majority of their products utilize palm oil or coconut oil; the most common issue observed with the wastewater is excessive foaming, which is controlled with a product known as Foam-A-Tac 210. A Safety Data Sheet (SDS) was for Foam-A-Tac 210 was provided to OSC, and no ingredients were listed in Section 3 of the SDS.

As a precautionary measure, the sewer connection at the park was excavated and cut off on July 7 by Marion County.

The Mayor for the City of New Hope provided information about the construction of the park and its use. A berm was constructed around the west side of the park in order to prevent the pond from draining into the park, but the berm also held water inside the park resulting in regular flooding. Stagnant water was often observed in the park, and it was initially believed that the recent odor was the result of excessively stagnant water and decomposing organic material from the pond and forest. In order to drain the park, the City excavated a channel in the berm sometime during the week of June 29 and allowed water to flow from the park into the pond. This excavation exposed a visible black layer of material in the berm, which was identified as foundry sand from the Lodge Cast Iron Foundry in South Pittsburg, TN. It is unknown if the foundry sand contributed to the dark color of the water, but the dark color was visible in the park upstream of the channel and, reportedly, no foundry sand was installed in the park. There was a fryer in the park building with a 5-gallon oil and grease container that had not been used since 2012. The fryer and container were found when the park building was opened for inspection, but there were no visible signs that the contents inside the building were different from the material outside the building, so the fryer was not considered to be a source of oil outside the building.

A representative from TDEC's Division of Water Resources indicated that in 2011 a similar spill occurred in a nearby county from an intentional discharge of animal grease rendering waste. The discharge from 2011 shared many characteristics currently observed in New Hope Park. Analysis from that discharge showed high detections of VOCs such as Acetone and MEK, which were part of solvent products used to clean the tanks at the facility. The samples collected by START will be analyzed for VOCs, which will assist in determining whether the same characteristics are observed.

2.3 Logistics Section

There is no information to report in this section.

2.4 Finance Section

2.4.1 Narrative

The initial deployment on 7/9/2020 was for a response to animal fat or used cooking oil that had been allegedly discharged from a truck at New Hope City Park. Federal Project Number (FPN) E20417 was opened with the National Pollution Fund Center (NPFC) with an initial amount of $50,000 to respond to the discharge. An EPA Site identification (ID) number V4GQ was opened for the response.

Upon the development, a strong suspicion beginning on 7/10/2020 was that the release was the result of mixed waste or perhaps sewage, a Comprehensive Response Compensation and Liability Act (CERCLA) Site ID of C4F3 with an EPA ID of TNN000420074 was opened.

ERRS and START were mobilized to the response under OSC's warrant authority, which will be documented in an Emergency Response Action Memorandum. Budgeted costs for each contractor do not represent the total obligation available, and estimated costs do not represent actual expenditures for the time period.

Estimated Costs *

	Budgeted	Total To Date	Remaining	% Remaining
Extramural Costs				
ERRS - Cleanup Contractor	$50,000.00	$12,000.00	$38,000.00	76.00%
TAT/START	$10,000.00	$2,000.00	$8,000.00	80.00%
Intramural Costs				

Total Site Costs	$60,000.00	$14,000.00	$46,000.00	76.67%

* The above accounting of expenditures is an estimate based on figures known to the OSC at the time this report was written. The OSC does not necessarily receive specific figures on final payments made to any contractor(s). Other financial data which the OSC must rely upon may not be entirely up-to-date. The cost accounting provided in this report does not necessarily represent an exact monetary figure which the government may include in any claim for cost recovery.

2.5 Other Command Staff

2.5.1 Safety Officer

The EPA Region 4 Superfund and Emergency Management Division (SEMD) COVID-19 Safety Best Practices and SEMD COVID_19 Activity Hazard Analysis have been reviewed and implemented at the response. The ERRS contractor will include the best practices document as an attachment to its Health and Safety Plan.

2.5.2 Liaison Officer

There is no information to report in this section.

2.5.3 Information Officer

There is no information to report in this section.

3. Participating Entities

3.1 Unified Command

EPA is responding with assistance and consultation from TDEC, Marion County, and the City of New Hope. However, no Unified Command has been established as there are no other response assets deployed.

3.2 Cooperating Agencies

City of New Hope
Marion Gas Systems Board of Waterworks & Sewers
Tennessee Department of Environment and Conservation

4. Personnel On Site

EPA (1)
ERRS (9)
START (1)
TDEC (1-2)
City of New Hope (1)
Marion County (1-2)

5. Definition of Terms

The term "discernible grease" is used in the POLREP to distinguish between material that is confidently known to be grease by its physical characteristics at the Site, from material that may or may not be grease which has been weathered or mixed with other materials.

6. Additional sources of information

6.1 Internet location of additional information/report

There is no information to provide in this section

6.2 Reporting Schedule

Additional POLREPs will be generated at a schedule of at least one per 48-hour period during the response.

7. Situational Reference Materials

There is no information to report in this section